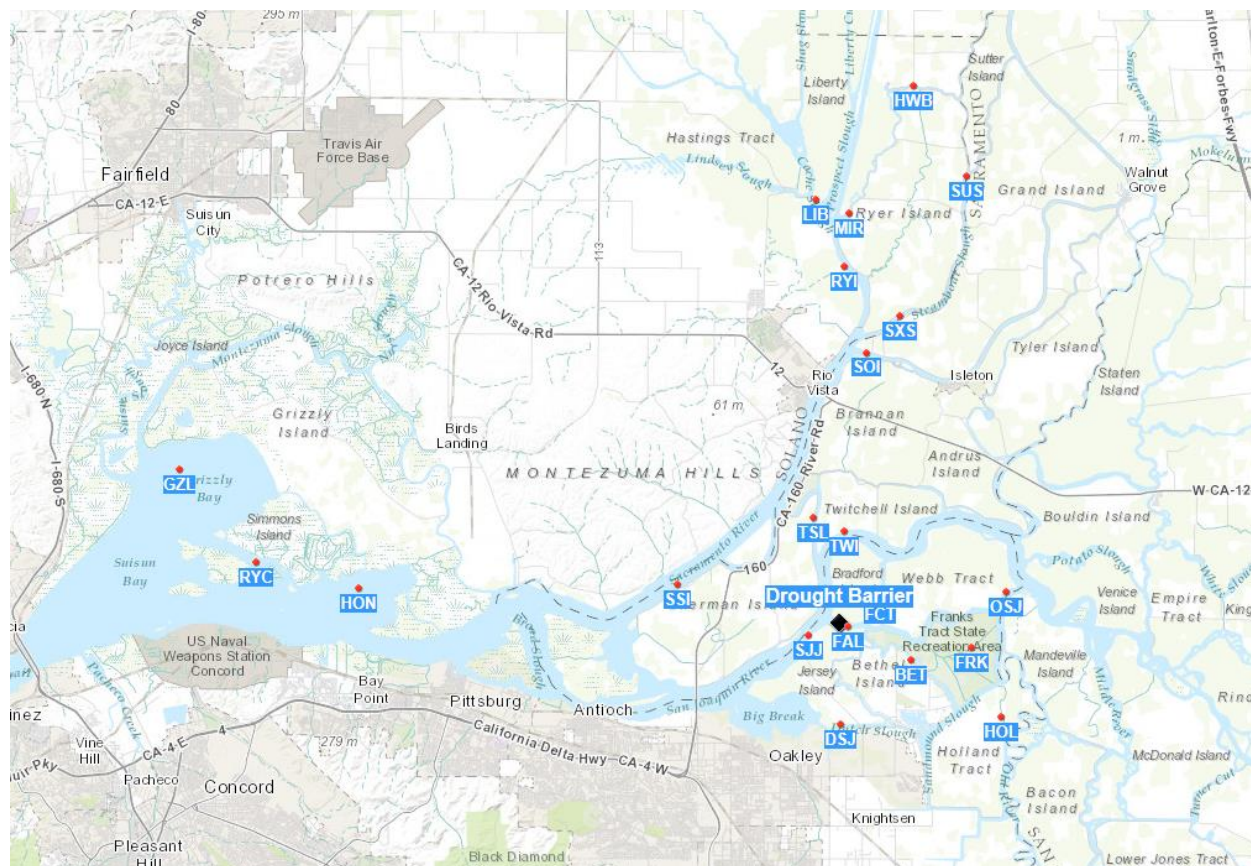


Emergency Drought Barrier Water Quality Monitoring Summary ¹

Weekly Update for July 13 through July 19, 2015

Below is a summary of water quality, flow, and velocity data since the hydraulic closure of the Emergency Drought Barrier (EDB) at West False River on May 28, 2015, with emphasis on trends observed during the past week. The EDB rock placement was completed on June 12, 2015. For additional water quality monitoring data, access the network of CDEC stations at the following link:

<http://dwr.maps.arcgis.com/apps/Viewer/index.html?appid=3be5e0bbe0994b76883b0567f4f6b9e3>

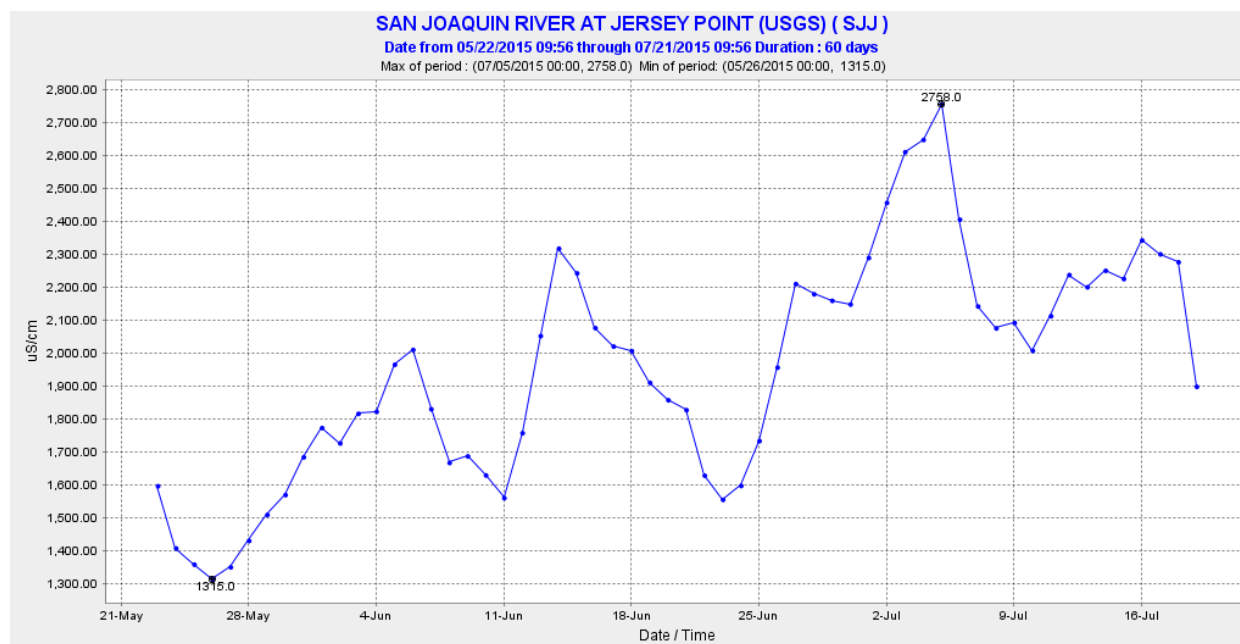
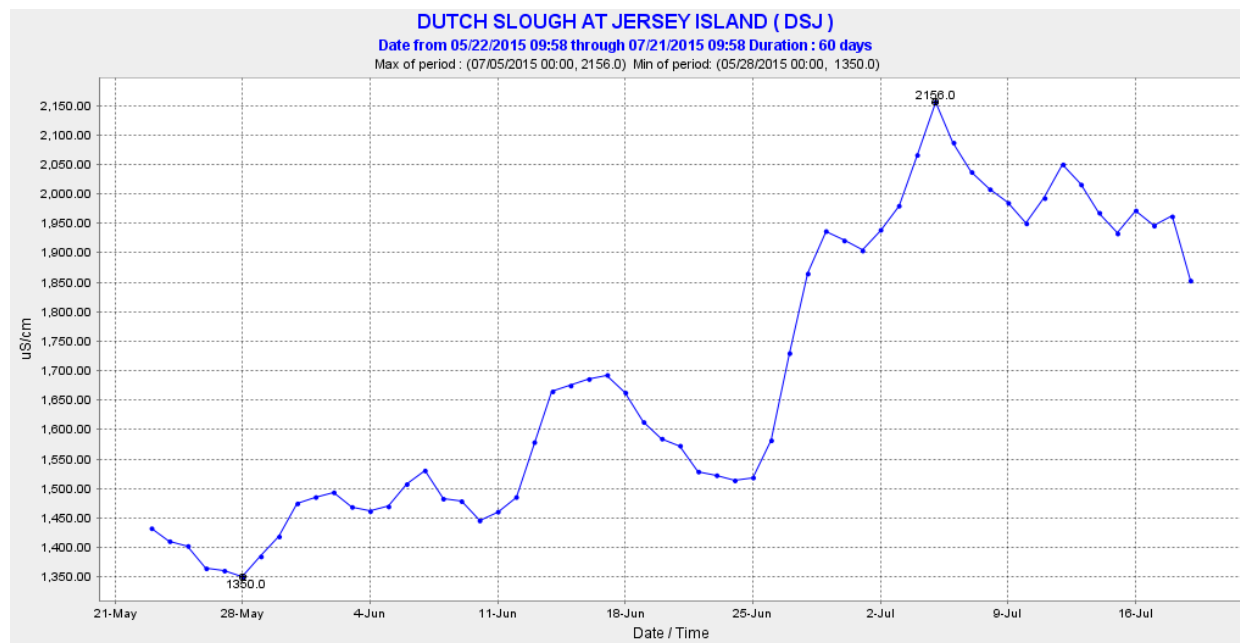


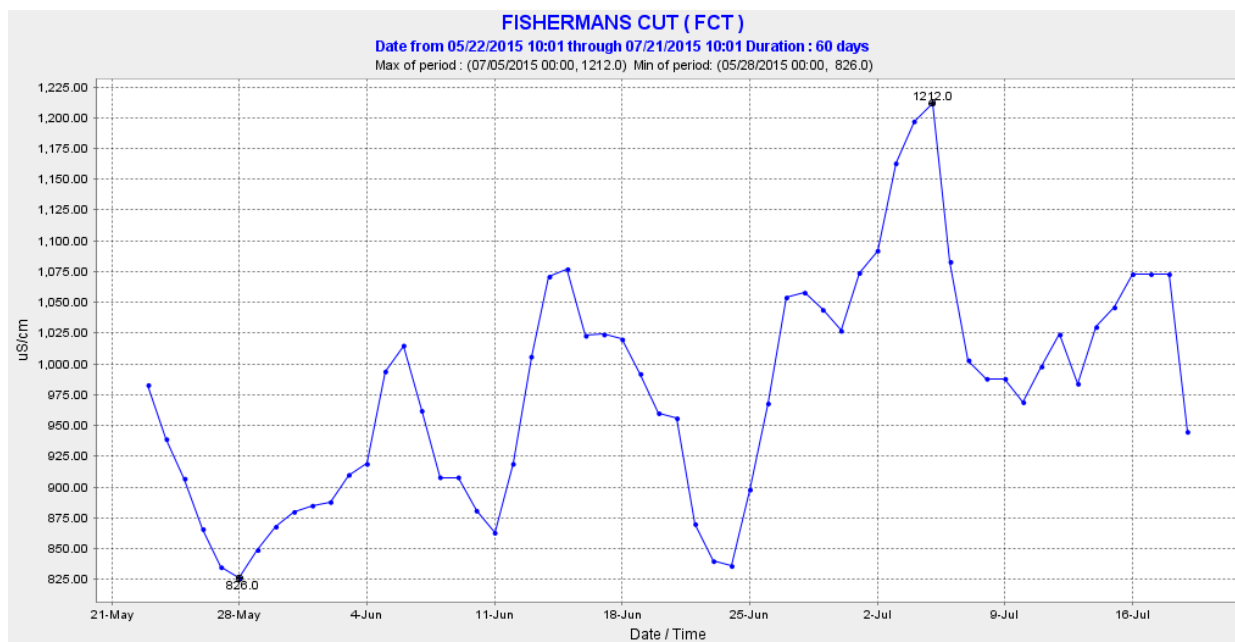
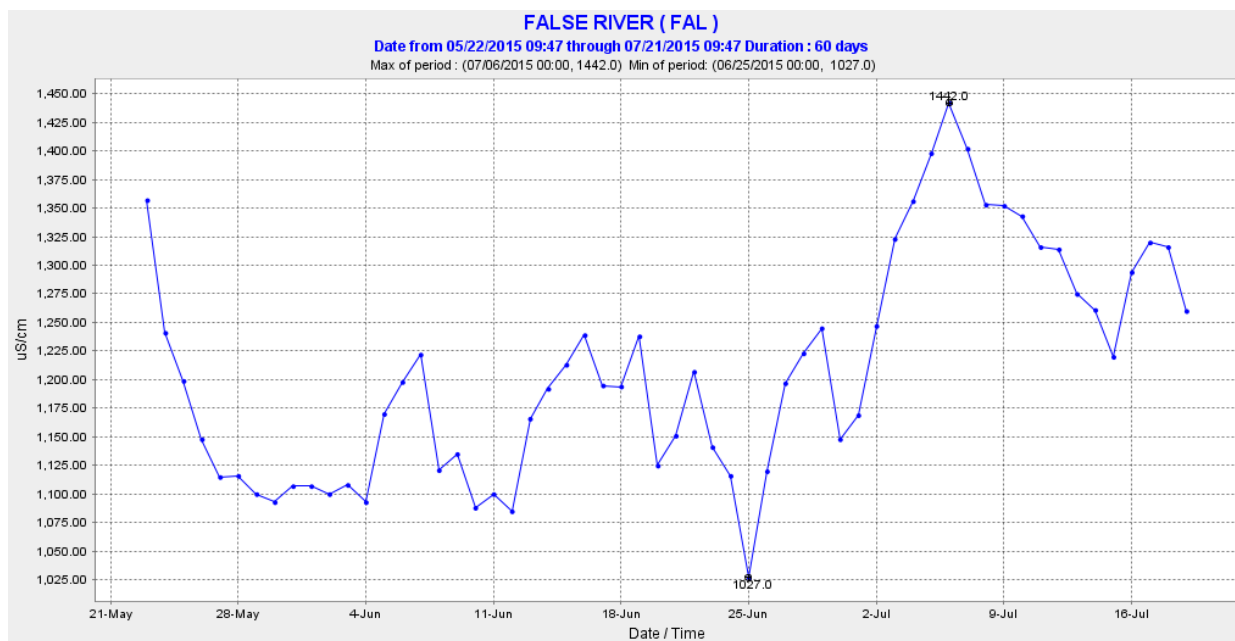
Specific Conductivity

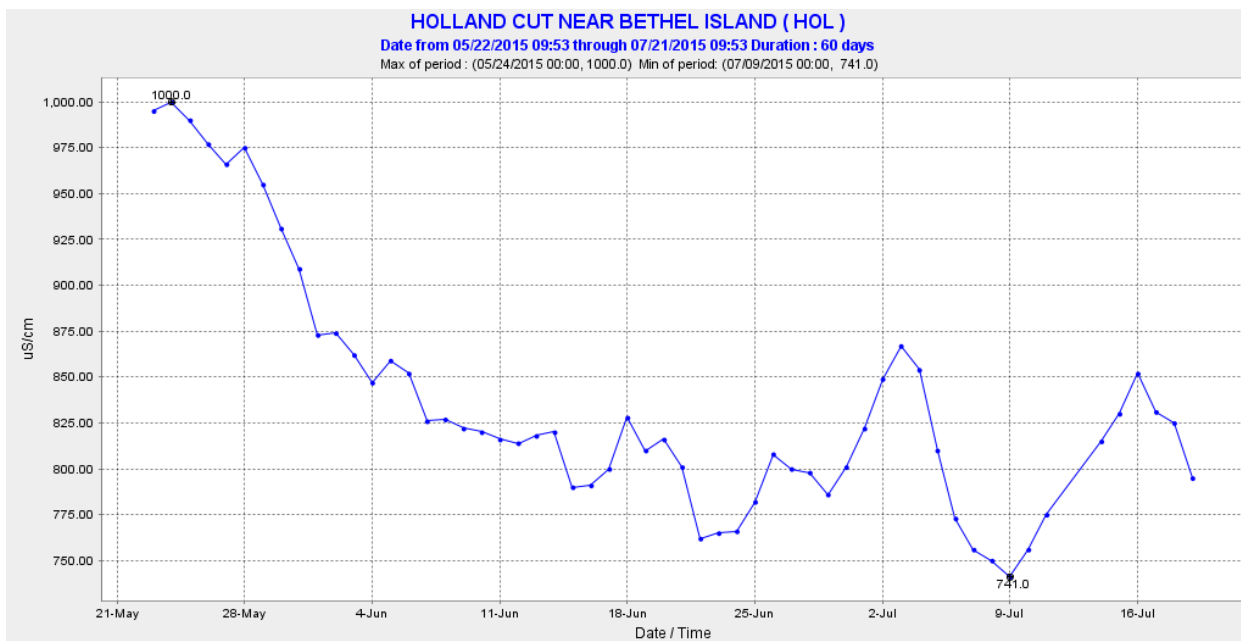
During the past week, average daily specific conductivity (EC) levels trended slightly downward at Dutch Slough at Jersey Island (DSJ), San Joaquin at Jersey Point (SJJ), False River (FAL), and Fisherman's Cut (FCT). Throughout the week, EC levels were mostly stable at those stations, until Sunday, when EC levels dropped at all stations. SJJ had the most significant reduction in EC readings this week. SJJ EC levels dropped from 2240 $\mu\text{S}/\text{cm}$ on 7/12 to 1901 $\mu\text{S}/\text{cm}$ on 7/19. EC levels slightly rose at the Holland Cut near Bethel Island (HOL) station before returning to similar EC levels as the end of last week (775 to 795 $\mu\text{S}/\text{cm}$).

¹ All data in this report and subsequent weekly reports posted to California Data Exchange Network (CDEC) are preliminary and have not yet been validated.

Daily average EC values for five stations in the vicinity of the EDB:



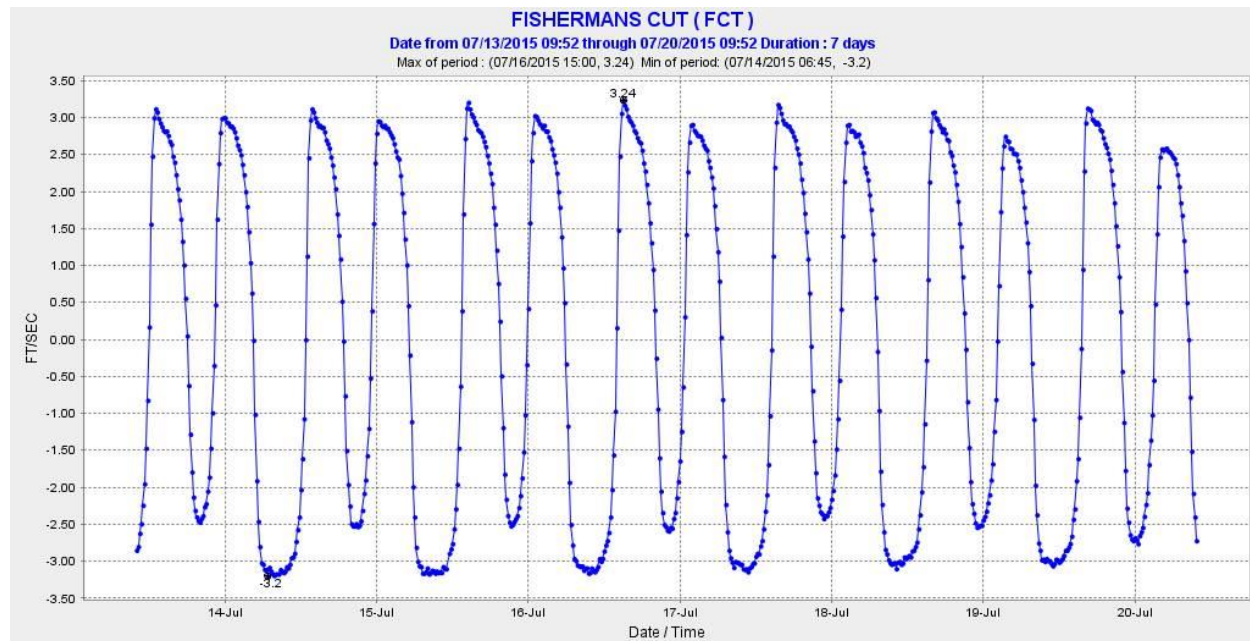




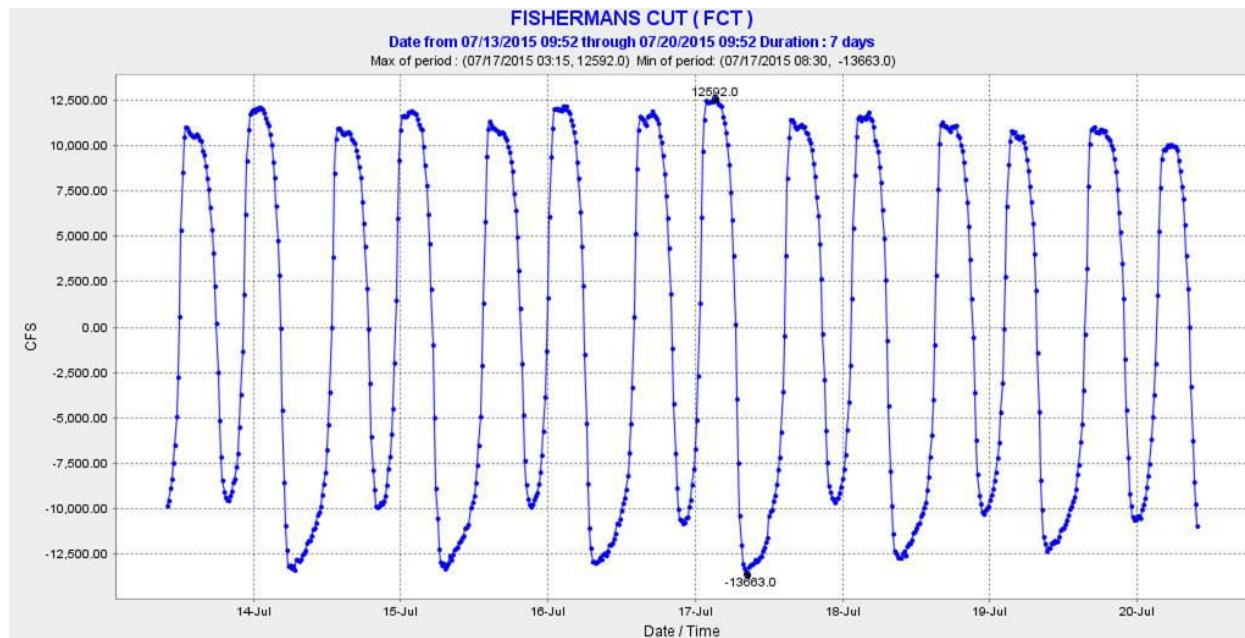
Flow and Velocity

Fisherman's Cut experienced a spring tide during the week of July 13 through July 19. Peak water velocities at the FCT flow station varied between +3.24 ft/s (7/16/15 at 15:00) and – 3.20 ft/s (7/14/15 at 06:45). While the barrier is in place, positive water velocities measured at this station refer to water that is flowing into Fisherman's Cut southward from the San Joaquin River. Thus, last week's peak water velocity of +3.24 ft/s occurred during a flood tide. However, flows varied between +12,592 cfs (7/17/15 at 03:15) and –13,663 cfs (7/17/15 at 08:30) indicating a higher peak flow during an ebb tide. Peak ebb velocities in Fisherman's Cut generally decreased in magnitude through the week while peak flood velocities remained fairly constant with a slight tapering off towards the end of the week. Velocities will likely decrease over the course of this week's neap tide.

15-Minute velocities for FCT in the vicinity of the emergency drought barrier:



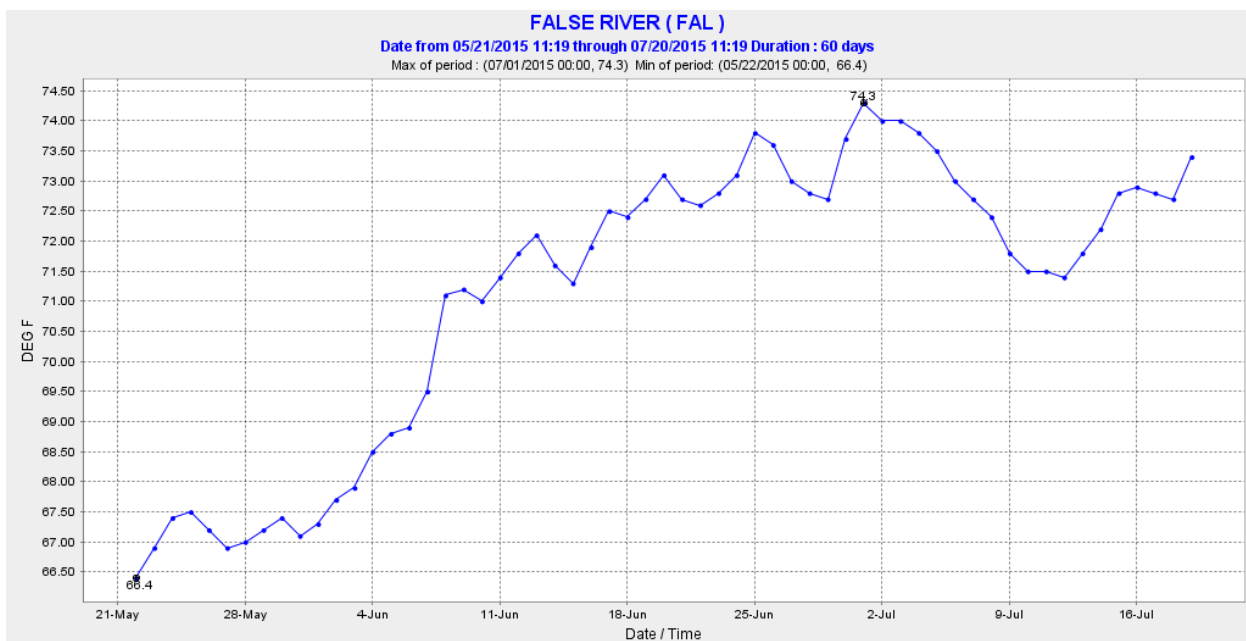
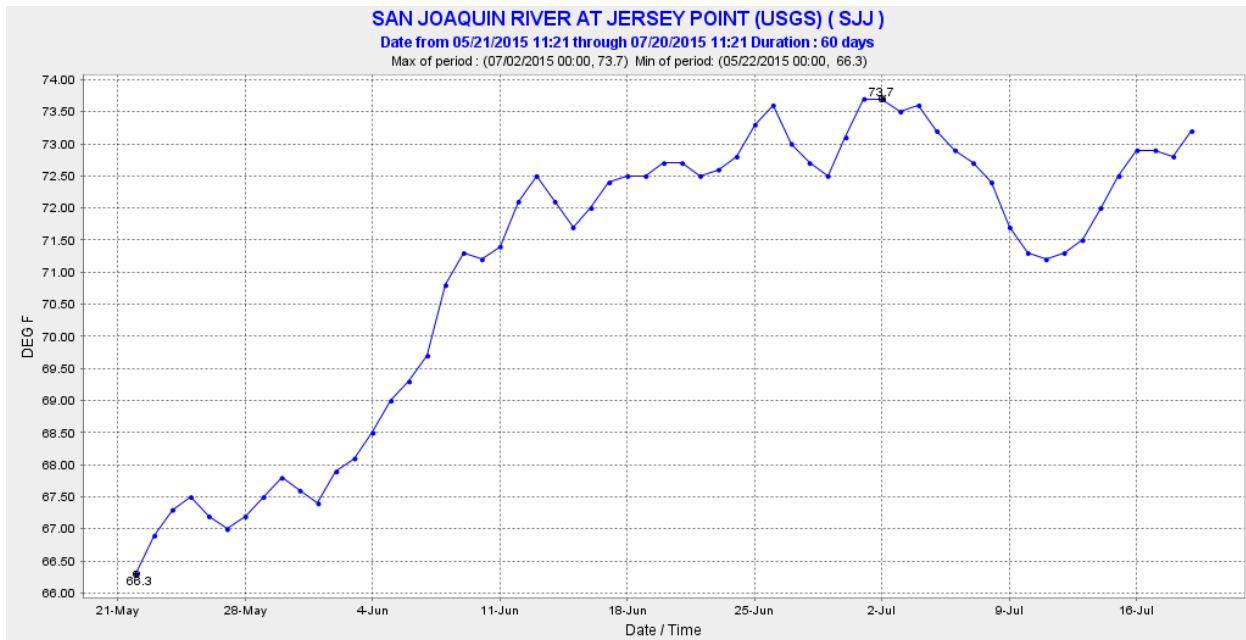
15-Minute flows for FCT in the vicinity of the emergency drought barrier:



Water Temperatures

Average temperatures increased 2°F during the past week at FAL and SJJ stations.

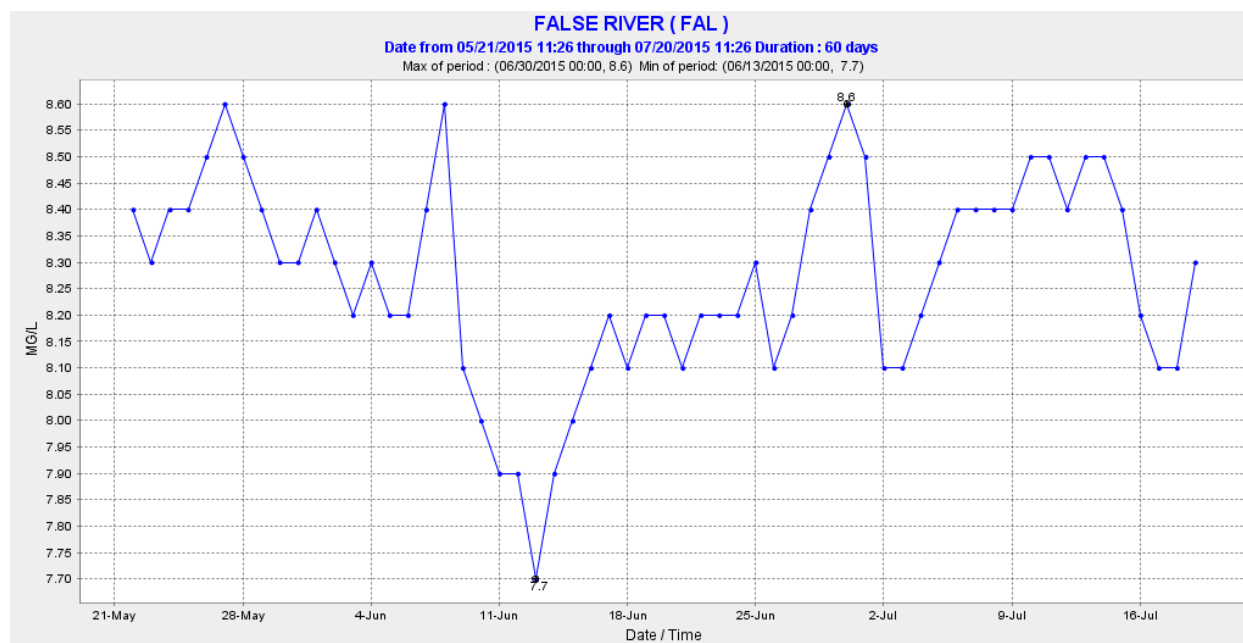
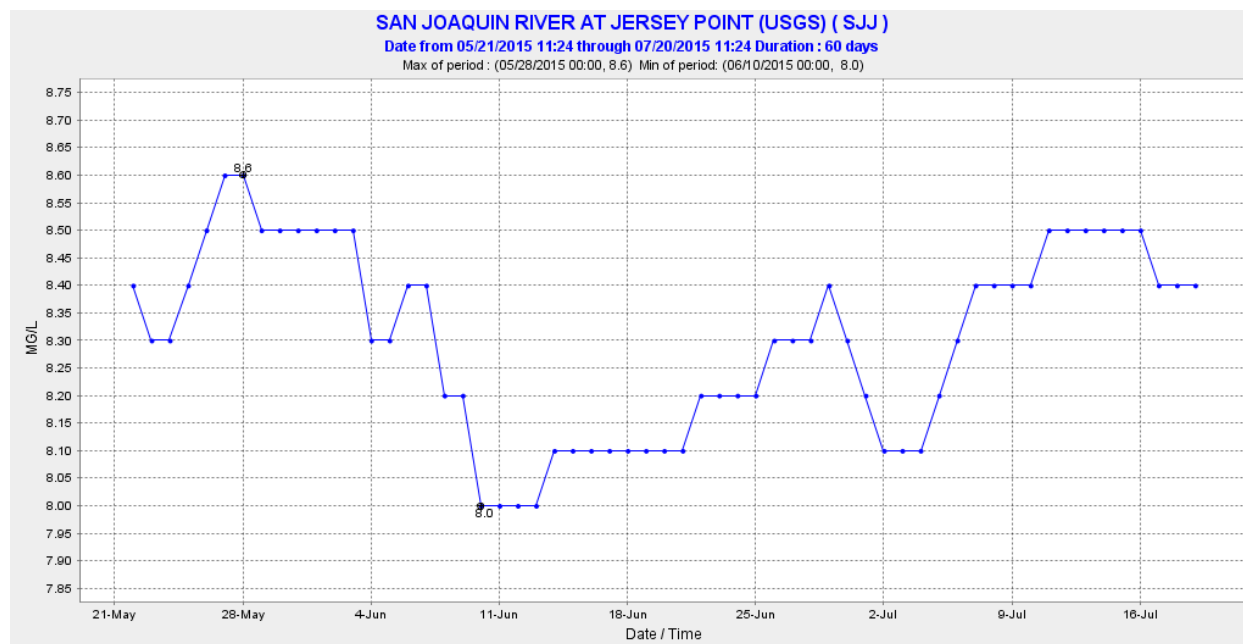
Daily average temperatures for stations immediately upstream and downstream of the EDB:



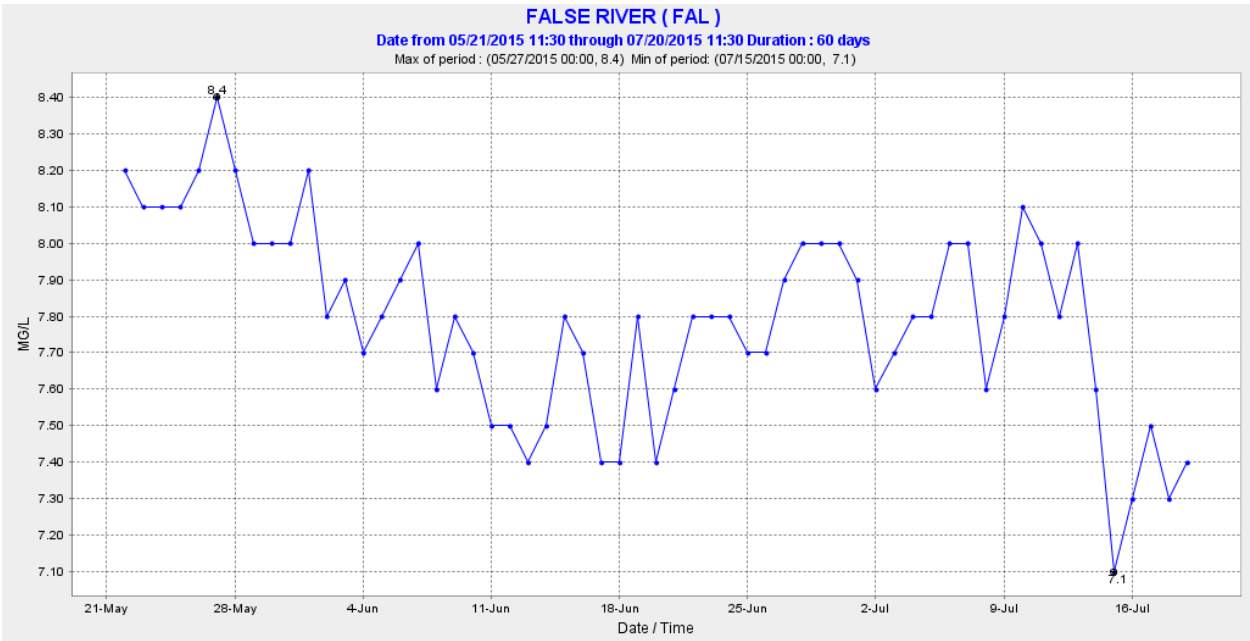
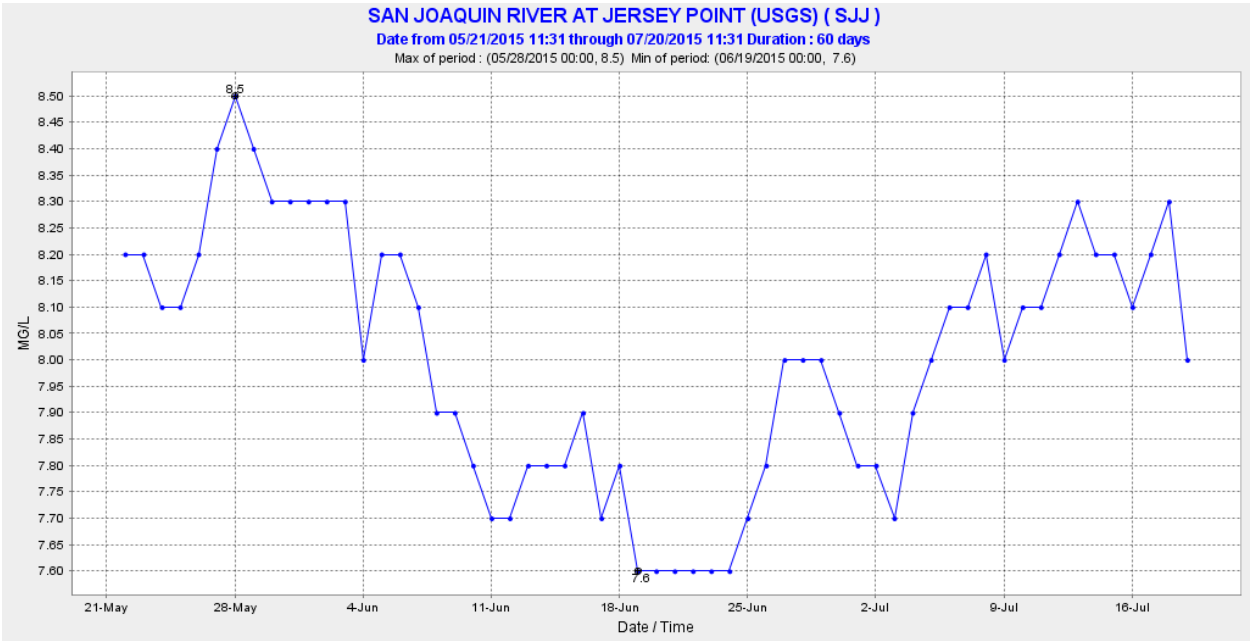
Dissolved Oxygen

Average daily dissolved oxygen (DO) varied only slightly during the week and remained above 8.0 mg/L at the FAL and SJJ stations. Minimum DO levels for the two stations remained well above the 5.0 water quality criterion for aquatic life, as they have remained since the barrier was installed.

Daily average DO for stations immediately upstream and downstream of the EDB:



Daily minimum DO for stations immediately upriver and downriver of the EDB:



Summary of EC data ($\mu\text{S}/\text{cm}$) by station for the period of July 13 through July 19, 2015.

Station	Mean	Median	Minimum	Maximum	Area
Dutch Slough @ Jersey Island (DSJ)	1952	1920	1460	2480	Dutch Slough
San Joaquin River @ Jersey Point (SJJ)	2215	1995	933	4510	
Three Mile Slough at San Joaquin River (TSL)	2087	1940	890	4000	Vicinity of EDB
San Joaquin River @ Twitchell Island (TWI)	1494	1433	649	2811	
Fisherman's Cut (FCT)	1031	938	635	1755	
False River (FAL)	1278	1300	1110	1500	
Bethel Island near Piper Slough (BET)	982	972	932	1172	Frank's Tract
Franks Tract Mid	829	833	728	869	
Old River near Frank's Tract near Terminous (OSJ)	678	668	548	902	
Holland Cut near Bethel Island (HOL)	825	798	718	1070	
Sacramento River downstream of Isleton (SOI)	434	399	133	1235	North Delta/Cache Slough
Steamboat Slough near Sacramento River (SXS)	241	182	136	677	
Cache Slough @ Ryer Island (RYI)	244	217	194	546	
Liberty Island @ Approx Cntr S End (LIB)	215	208	195	313	
Miner Slough (MIR)	169	141	132	273	
Steamboat Slough downstream of Sutter Slough (SUS)	138	138	131	144	
Miner Slough @ HWY 84 Bridge (HWB)	158	158	150	166	

Mean specific conductance ($\mu\text{S}/\text{cm}$) for the period of July 13 through July 19, 2015.

